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PAPERS READ

BEFORE THE

ROYAL GEOGRAPHICAL SOCIETY.

I.—*The Voyages of Martin Frobisher.** By A. B. BECHER, Commander, R.N., of the Hydrographical Office, Admiralty.

It is remarkable that, while numerous voyages of discovery have been made with the object of extending our knowledge of the northern polar regions during the last three centuries, the discoveries of one of our earliest arctic navigators have been left unheeded. The attempts of Martin Frobisher and his daring companions in the reign of Elizabeth, to find a N.W. passage, were directed to a portion of the northern regions which has been left on the one hand by subsequent discoverers proceeding north-

* It may not be altogether useless or uninteresting to the geographer to mention in a note the principal materials from which a knowledge of the adventures and discoveries of Frobisher may be obtained. It is not creditable to our country that so little has been done to preserve and render available the records of the navigation of his age. Captain Becher's paper shows that they contain valuable material even for positive geography; and their importance for the purposes of comparative geography is still greater. The accounts we possess of Frobisher's expedition to the N.W. are partly printed and partly MS.

I. PRINTED.—I. "A true Discourse of the late Voyages of Discoverie, for the finding of a Passage to Cathaya by the N.W., under the conduct of Martin Frobisher, General: divided into three bookes. In the first whereof is showed his first voyage, wherein also by the way is sette out a geographical description of the worlde, and what partes thereof have been discovered by Englishmen. Also, there are annexed certayne reasons to prove all partes of the world habitable, and a general mappe adjoynd. In the second is set out his second voyage, with the adventures and accidents thereof. In the thirde is declared the strange fortunes which hapned in the third voyage, with a severall description of the country and the people there inhabiting. With a particular card thereunto adjoynd of Meta Incognita, so farre forth as the secretes of the voyage may permitte. At London; Imprinted by Henry Bynneyman, servant to the Right Honourable Sir Christopher Hatton, Viz-Chamberlaine. Anno Domini 1578." A copy of this work is in the King's Library, in the British Museum:—C. 13. a. 9. Some

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remarks on the "card" will be found at the close of Captain Becher's paper.—2. Hackluyt's folio volume, published in 1589, entitled "The Principal Navigations, Voyages, and Discoveries made by the English Nation." This collection contains, in addition to a reprint of George Best's "True Discourse," a journal of the first voyage by Christopher Hall, an account of the second by Dionysius Settle, and an account of the

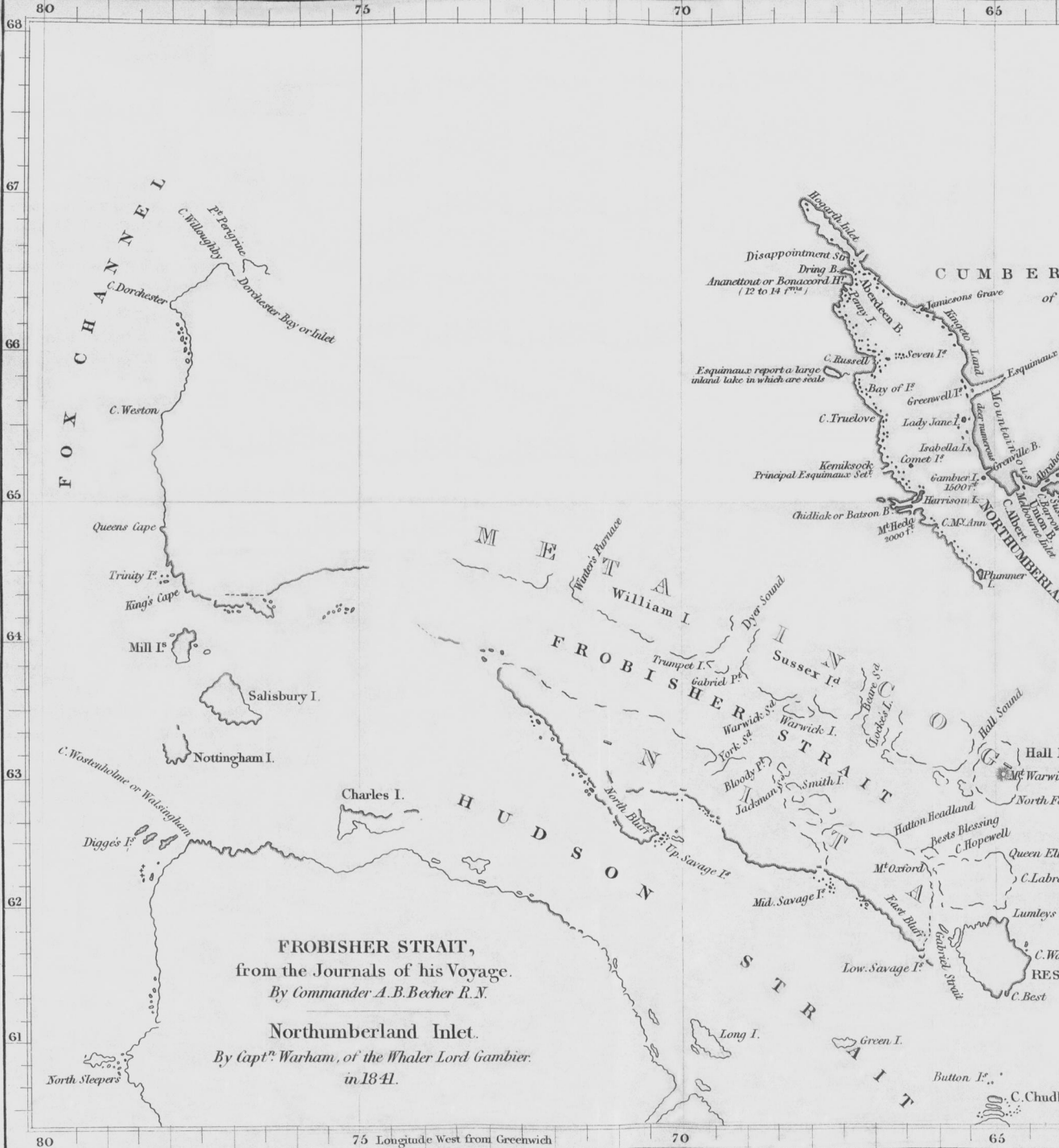
ward up Davis Strait into Baffin's Bay, and on the other by those proceeding westward through Hudson Strait. Hence Frobisher's ground has remained untouched since his time, and it is with a view to extricate from oblivion places which he discovered, and to assign to them, as nearly as can be done, their relative positions on the chart, that the following paper has been undertaken. The materials it is true are scanty, and there is a vagueness in many of them which is unsatisfactory; still the relative positions of some points and the names assigned them are sufficiently determined to prove that the merit, if any, of prior discovery, indisputably belongs to Martin Frobisher.

The three voyages of Martin Frobisher were performed in the years 1576, 1577, and 1578; the first apparently with the laudable object of geographical discovery, the other two with that of obtaining treasure.

First Voyage.—The ships employed were the "Michael" of 30 tons, the "Gabriel" bark of 35 tons, and a pinnace (or pinnesse, as formerly written) of about 10 tons; the "Michael" being commanded by the Captain-General Martin Frobisher in person. They sailed from Ratcliffe, in the River Thames, on the 7th of June, and we may picture to ourselves the excitement occasioned by her Majesty Queen Elizabeth honouring the ad-

third by Thomas Ellis.—3. Hackluyt's General Collection of Voyages and Travels, published in three volumes, folio, 1598—1600. In this collection many passages are omitted in the journal of Christopher Hall; and it is this mutilated copy that has been reprinted by Pinkerton, and in the edition of Hackluyt, published in 1810. The French, German, and Latin accounts of Frobisher's voyages, which have appeared from time to time, are either reprints or abstracts of Best's discourse, or the journals printed by Hackluyt.

II. MANUSCRIPT.—1. "The Doings of Michael Lok, for the Voyage of Cathay." This MS. is bound up with some other papers in a volume of the Cottonian MSS. in the British Museum (Otho E. VIII.—23. c.), which has been materially injured by fire. It consists of two fragments: the first, a draft account of the first voyage by Lok, who was secretary to the adventurers; the second, a part of a vindication of Lok's conduct as secretary, drawn up by himself. The papers alluded to in Captain Becher's paper, as found in the State Paper Office, and published in the "Nautical Magazine," are extracts from accounts relating to Frobisher's voyages, found in the archives of the Court of Exchequer. This second of Lok's papers has the appearance of an explanatory statement, intended to accompany them.—2. Some papers bound up in a volume of the Harleian MSS. (61. f.), viz.:—a. "The Account of the Third Voyage to Meta Incognita, made by Mr. Christopher Hall, master of the ship Ayde, and now pilot in the ship Thomas Allyn." This is a regular log of the voyage, kept with great neatness and apparent accuracy by the same Christopher Hall, whose journal of the first voyage has been turned to such good account by Captain Becher. It belonged at one time to the notorious Dr. Dee.—b. A Journal of the Third Voyage, endorsed "Edward Sellman wrote this book, and he delivered it to Michael Lok the 2nd of October, 1578, in London."—3. c. A fragment of a Narrative of the Third Voyage, by an anonymous person "on board the Judith, over whom Edward Fenton is master, Charles Jackman pilot."—To these may be added a chart of the northern hemisphere by Dr. Dee, who took an active part in instructing and exercising the mariners engaged in these voyages in the art of making observations, and who appears to have obtained possession of many of their journals.¹ It forms part of the Cottonian collection of MSS. (Augustus I. vol. i.) in the British Museum.—[Ed.]



FROBISHER STRAIT,
from the Journals of his Voyage.
By Commander A.B. Becher R.N.
Northumberland Inlet.
By Capt. Warham, of the Whaler Lord Gambier.
in 1841.

venturesome navigators with her parting farewell. The journal of the voyage, preserved by Hackluyt (p. 615 of the edition of 1589), says—"At 12 of the clocke we wayed at Deptford and bare downe by the Courte, where we shotte off our ordinance, and made the best shewe wee could: her Majestie beholding the same commended it, and bade us farewell with shaking her hand at us out of the windowe."

By the 13th the expedition was clear of the river, passing down the Swin, or "Sweane," as Hackluyt calls it, and after touching at Harwich and Yarmouth they finally left Tronion Sound,* off Orkney, on the 26th of June, standing to the W., with a wind at S.S.E. The journal is very minute † thus far; a quality by which unhappily it is not characterised in other parts which are of more importance. Before we proceed, it will be useful, as guiding us in our conclusions hereafter, to look at the observations for latitude that are given in this early portion of it, and compare them with the known latitude of the places where they were obtained.

The first is "when over against Gravesend, by the castle or blockhouse, we observed the latitude, which was $51^{\circ} 33'$ " on the 12th of June.

The second is at Harwich House; on the 17th the journal says, "We did observe the latitude of the place $51^{\circ} 54'$."

Another latitude is recorded on the 20th, but the third in question is on the 26th. "When sailing from Fair Yle to Swinborne Head," the journal says, "I did observe the latitude, being the island of Fowlay, W.N.W. from me 6 leagues, and Swinborne Head E.S.E. from me * * my latitude was $59^{\circ} 46'$."

The fourth latitude which I shall quote was with the island of Fowlay bearing E.N.E. 2 leagues distant, and is $59^{\circ} 59'$ "truely observed," which we may suppose to have been a satisfactory observation.

Taking these in their order, we find the first off Tilbury Fort to have been observed $51^{\circ} 33'$, correctly $51^{\circ} 27'$, error $6'$ too Northerly.

2nd. .. $51\ 54$.. $51\ 57$.. 3 too Southerly.

3rd. .. $59\ 46$.. $59\ 55$.. 9 too Southerly.

4th. .. $59\ 59$.. $60\ 3$.. 4 too Southerly.

On the whole the foregoing results are not amiss, considering the rude instruments used at sea above 250 years ago, and, as it now becomes a matter of much interest to know what these instruments were, it is gratifying to find that an account of them has been preserved among the records of the State Paper Office, some

* Perhaps Stromness, or St. Ninian Sound, from the proximity of the latter to Swinborne, now called Sumburgh Head, and which he particularises as "the southernmost head of Shetland."

† There are various soundings about Fair Isle and the S. end of the Orkneys, as well as off Fowlay Isle, mentioned in the journal (Hackluyt, p. 617), and which do not appear in the charts.

of which were printed and published in 1833. Among these papers is a complete list of Frobisher's instruments, with their prices.* It is most probable that the observations were made with the astrolabe, or the sea-ring (*annulus astronomicus*) there mentioned. From the examples given above we may infer that the latitudes given by this early navigator do not differ 10 miles from the truth; and perhaps in the smooth waters of the frozen straits, in which we shall hereafter find him, they may not be so far from it. We will now follow him in his voyage across the ocean.

On the 27th of June the expedition took a departure from the island of Fowlay, "2 leagues E.N.E.;" and the journal commences with an exact statement of the course and distance made good in every watch. This precision of reckoning is continued throughout, but only in the first voyage; and even there it has been omitted when the latitude is observed or when it is given by account, particularly in several places about the entrance of the strait, where this information would have been essential. The variation being given in the commencement as well as the middle of the voyage, it seemed worth while to make an attempt at laying down the track, which was accordingly done, due allowance being made as statements of wind, &c., permitted, and the result was satisfactory.

On the 11th of July the journal says, "At the S.E. sunne we had sight of the land of Friseland, bearing from us W.N.W. 16 leagues, and rising like pinnacles of steeples, and all covered with snow. I found myself in 61° of latitude." Now the track by the reckoning places the ships about 180 miles to the S.E. of this position, being so much short of the actual distance run, from which we may conclude that Frobisher's distances have not been over estimated. This will justify a full allowance to the estimated distances which we afterwards meet with. The land now made was of course the coast of Greenland, the southern part of which we find bearing the name of Friseland in the old charts. The vessels made for the land, and an attempt was made to send a boat on shore, which proved ineffectual. We afterwards find the ships steering S.W. along the coast before a N.E. gale, which freshened so considerably as to spring the foreyard and carry away the mizenmast of one of the ships. The journal of the 14th says, "The vehemence of the winde brake our foreyarde, and bore over boorde our missen maste, so we put our spreet-saile yard with the spreet-saile coarse to our foremast and spooned afore the sea S.W. 15 leagues." On the 16th another calamity befel the ship, for we find it stated, "At the ende of this watch the

* See Nautical Magazine, vol. ii. p. 470.

head of our maine mast, main topmast, with the topsaile, brake, and fel into the sea altogether."

The track of the ships now becomes of considerable importance, because in the old charts, in which there is much confusion, we find a strait *made* through the southern part of Greenland on purpose, as it were, for Frobisher to pass through. Yet it is evident, from the courses and distances given, that he ran to the southward round Cape Farewell, and saw nothing of land again till the morning of the 22nd, on which day the journal says (p. 619), "We had sight of a great drift of yce, seeing a firme land, and we cast westward to be cleare of it." It seems probable, by the reckoning round the Cape from the 11th, which agrees here better than could have been expected, that the drift of ice was on the coast to the E. of the land forming Cape Desolation; for by the journal it appears the ship stood to the southward to clear it. No further mention is made in Hackluyt of the land of Friseland, although the ships afterwards stood to the N.N.W. along the coast, and did not commence the voyage across Davis Straits until the 24th.

It being very desirable to ascertain where the next land was made as an additional clue to the position of Frobisher's Strait, the distances run have been laid down, but they fall very short of the actual width of Davis Strait. The journal fortunately gives the latitude on the 26th of $62^{\circ} 2'$, when it might, be supposed Frobisher was about the middle of the passage across, but land, supposed to be Labrador, is suddenly made on the morning of the 28th on fog clearing away. The deficiency in the distance amounts to about 180 miles from where the ships were on the 26th by an assumed reckoning, to about the meridian of the eastern point of Resolution Island, not far from which it may be supposed the land will be found. We now enter the most important, and yet the most unsatisfactory, part of this discussion. We have unfortunately no data for determining the precise situation of the land made on the 28th. The journal tells us that on the clearing away of the fog on the 28th the ships "had sight of land," supposed to be Labrador, and that no soundings could be got at 100 fathoms—"the land could not be approached for the ice." Next day the land was approached, a boat was sent away, but could not land, and could not get bottom at 100 fathoms within a cable's length of the shore. The journal next says, "Then we sailed E.N.E. along the shoare, for so the land lieth, and the current is there great, setting N.E. and S.W.; and if we could have gotten anker ground we would have seen with what force it had runne, but I judge a ship may drive a league and a half in one houre, with that tide."* This last observation is important, and is extracted for the purpose of reference hereafter.

* Hackluyt, p. 620.

On the 31st a headland is seen bearing N. by E., and a course N.E. by N. is steered to approach it, which was effected no nearer than 5 leagues, by reason of the ice. On the 1st of August soundings were got at different depths, but the only useful remark is, that "the tide did set to the shore." From this time to the 10th the vessels were prevented by easterly gales and calms from prosecuting their voyage, and an estimated track places them nearly where they were on the 31st July. But on this day also Frobisher went in his boat to an island one league from the main, where he says, "the flood setteth S.W. along the shore." The next day (10th) the journal says, "We found our latitude to be $63^{\circ} 8'$ and this day we entered the strait." The main alluded to, it may be supposed, is the land on the northern side of the strait. The information contained in the journal regarding places within the strait is so very scanty that it will be best to reserve all notice of it till that obtained from the subsequent voyages falls under consideration. It may, however, be mentioned here that the places named are Gabriel's Island, Prior's Sound (after Frobisher's vessel), Thomas Williams's Island, Burcher's Island, near to which is Five Men's Sound (called so from the circumstance of a boat with five men in her having been lost there), and Cape Labrador, which, from its name, and being the last land mentioned, would evidently be at the southern entrance of the strait.

Second Voyage.—We will now proceed to consider the second voyage, which we may briefly introduce in the words of the journal preserved by Hackluyt (p. 622):—"On Whitsundaye, beeing the sixe and twentieth of Maye, in the yeare of our Lord God 1577, Captaine Frobisher departed from Blacke Wall with one of the Queene's Majestie's shippes, called the Aide, of nine score tunne or thereabouts; and two other little barkes likewise, the one called the Gabriel, whereof Master Fenton, a gentleman of my Lord Warwicke's, was captaine, and the other the Michael, whereof Master Yorke, a gentleman of my Lord Admirall's, was captaine, accompanied with seven score gentlemen, souldiers, and sailers, well furnished with victuals and other provision necessarie for one half-yeare on this his second voyage," &c.

This little squadron watered at the Orkneys; after leaving which, on the 8th of June, they made Friseland on the 4th of July, and coasted it for four days. On the 16th of the same month land was made which the journal says "our Generall, the yeare before, had named the Queene's Foreland," a proof of the looseness of the first year's journal. Arrived at the entrance of the strait, Frobisher, with "two little pinesses," proceeded to the E. shore, while the ships lay off and on outside the barrier of ice, by which the strait was closed, at a great risk of being beset. The next day Frobisher regained his ship, and on the 20th of

July, a N.W. wind clearing the strait, “a faire harbour” was found for the shippe and barkes to ride in, and into which they entered, and called it Jackman’s Sound, after the master’s mate of the Gabriel, on the 20th of July. Here, as usual, formal possession was taken of the country, stones were piled up in different parts as the party proceeded on a journey of research for several days under Frobisher, who left his ships in the Sound with commands to the crews to be “obedient in things needful for safeguard to Master Fenton, Master Yorke, captain of the Michael, and Master Beast, his lieutenant.”

It appears that this Jackman’s Sound is by no means a secure anchorage, for the journal says, “We were forced sundry times while the ship did ride here at anker to have continual watch with boates and men ready with halsers to knit fast unto such ice which with the ebb and flood were tossed to and fro in the harbourough, and with force of oars to hale them away for endangering the ship;” by which it would almost appear that the Sound is open to a strong tide from the southward as well as the northward.

Having explored the country in the neighbourhood of this Sound, Frobisher crossed over to Warwick Sound, leaving the Gabriel, whereof Master Yorke was captain, and who, coasting “along the west shore with a party, and not far from where the ship rode, perceived a fair harbour, at the entrance of which they espied two tents of seal-skins.” It was here that the disgraceful transaction took place of the murder of some natives, which has been so severely commented upon by historians; and although it must be allowed that Frobisher’s people had reason to be incensed against the natives, having lost, by what they considered their treachery, five men with a boat the year before, still the whole affair is another proof of the barbarity of former days. The natives were attacked, and, several being killed, the point was called Bloody Point, and the sound Yorke Sound. Bloody Point, from the manner in which it had been approached by land from Jackman’s Sound, would appear to form the eastern point of entrance to York Sound. On destroying their tents afterwards some of the effects belonging to their unfortunate countrymen were found.

From York Sound the ships proceeded across the strait to the eastern shore on the 3rd of August, and, arriving there next day, anchored in Anne Warwicke’s Sound, which is called a fair harbour, and named after the Countess of Warwick. The remainder of this season was employed by Frobisher in freighting the ships in this sound with “such stone or gold minerall as he judged to countervaille the charges of his first and this his second navigation

to these countries, with sufficient interest to the venturers, whereby they might both be satisfied for this time, and also in time to come (if it pleased God and our Prince)," as the journal quaintly says (p. 626), "to expect a much more benefite out of the bowels of those septentrionale parallels, which long time hath concealed itselfe, till at this present, through the wonderfull diligence and great danger of our generall and others, God is contented with the revealing thereof. It riseth so abundantly that from the beginning of August to the 22nd thereof (every man following the diligence of our general) we raised aboveground 200 tunne, which we judged a reasonable freight for the ship and two barks, in the said Ann Warwicke's isle." On the 24th of August the vessels departed on their homeward voyage. On the 29th of August the "Michael," one of the barks, was lost sight of "by occasion of great tempest and fogge." The former arrived safely at Yarmouth, and the latter at Bristol. On the 17th of September the Land's-End was discovered, and, the journal says, "so to Milford Haven, from whence our generall rode to the court, for order to what porte or haven to conduct the shippe." Orders were sent down a month afterwards for the "Aide" to go to Bristol, and by order of the Lords of the Council "the ore was committed to keeping in the castle there."

Third Voyage.—The belief that the lading of Frobisher's ship, the "Aide," was valuable treasure, led to a third expedition, on a far greater scale than any preceding. The account of this voyage by George Best, reprinted from Hackluyt, in Pinkerton's collection (vol. xii. p. 532), states that, "finding that the matter of the gold-ore had appearance and made show of great riches and profit, and the hope of the passage to Cataya by this last voyage greatly increased, Her Majesty appointed special commissioners, chosen for this purpose, gentlemen of great judgment, art, and skill, to look thoroughly into the cause for the true trial and due examination thereof, and for the full handling of all matters thereunto appertaining. And because that place and country had never heretofore been discovered, and therefore had no special name by which it might be called and known, Her Majesty named it very properly *Meta Incognita*, as a mark and bound utterly hitherto unknown." We have here the origin of the name of the country visited in these early voyages of Frobisher, earlier than those of any other British navigator. The expedition, although an entire failure in so far as the great object of obtaining gold was concerned, was of considerable importance in a geographical point of view, and its progress therefore deserves close examination, more especially as it does not appear to have yet received that attention to which it is entitled. We find the account

of it but a meagre attempt at a nautical journal, and even that fails us where most needed; but still the information which it does afford may be turned to account.

The number of ships composing this expedition amounted to fifteen, at the head of which was their "general," Martin Frobisher, in the "Aide." George Best says, "The said fifteen sail of ships arrived and met together at Harwich the 27th of May, anno 1578, where the general and the other captains made view and mustered their companies," and where certain articles of direction were delivered by Frobisher. These directions or articles for the guidance of the fleet are interesting in themselves, as giving some little insight to the state of the discipline of our ships in those remote times, but they are foreign to our present purpose.

Departing from Harwich on the 31st of May, the general descried land at two in the morning of the 20th of June, and found it to be West Frizland, and then named West England. A landing was made and possession taken of the country. Natives were seen with their canoes, which were said to be like those of *Meta Incognita*. This could be no other than Greenland, and the ships departed from it on the 23rd, first giving the name of Charing Cross to a high cliff, the last in sight, on account of a "certain similitude." On the 2nd of July the Queen's Foreland was seen, and, although the straits were blocked up by ice, the ships stood on and entered them. This was not done, however, without mischief; for the account says that the bark "Denis" was sunk, having struck against the ice; the crew were fortunately saved. But a gale came on from the S.E., which, pressing the ships among the ice, did them considerable damage; and from which they were released the following day by the wind coming from W.N.W., when "some were employed in setting up their topmasts and mending their sails and tacklings; again some complaining of their false stem borne away, some in stopping leaks, and some in recounting their dangers past, spent no small time and labour."

Such was the disheartening effect on these early navigators that we read,—“The whole fleet plied off to seaward, resolving there to abide until the sun might consume, or the force of the wind disperse, these ice [bergs] from the place of their passage; and being a good berth off the shore, they took in their sails, and lay adrift.” Now the interval in which the fleet thus lay adrift appears to have been from the 3rd to the 7th of July, when the journal says, “As men nothing yet dismayed, we cast about towards the inward (Pinkerton, vol. xii. p. 539), and had sight of land, which rose in form like the northerland of the streights, which some of the fleet, and those not the worst mariners, judged

to be the North Foreland, howbeit some were of a contrary opinion."

Here the schism arose, and the question became, as there is no doubt of the vessels not being in Frobisher's Strait, as to what strait they really had entered. The ships at this time were steering a course along what was at first considered to be the N. side of Frobisher's Strait. But the journal continues, after complaining of the duration of fogs, and the deceptive nature of them upon the land, that they had been carried to the S.W. of the Queen's Foreland, at the southern entrance of the strait, and, "being deceived by a swift current coming from the N.E., were brought to the south-westward of our said course, many miles more than we did think possible could come to pass, the cause whereof we have since found."* We have here a direct admission that the ships were set to the S.W. during this time that they "lay adrift;" but if we look further, we find that they found a "swifter course of flood than beforetime they had observed; and truly it was wonderful to hear and see the rushing and noise that the tides do make in this place, with so violent a force, that our ships, lying a-hull, were turned sometimes round about even in a moment, after the manner of a whirlpool; and the noise of the stream no less to be heard afar off than the waterfall of London-bridge."

Our chief polar navigator, Captain Sir Edward Parry, bears ample testimony to the uncertain and violent nature of the tides in the particular part under consideration. It appears, from the published account of his second voyage in the *Fury* and *Hecla*, that Sir Edward first encountered here the difficulties which beset him on that expedition. After alluding to the flood-tide running W.S.W. 2 or $2\frac{1}{2}$ knots, he observes, "the eddies and whirlpools, however, caused by the tide running at the rate of 4 or 5 knots, rendered the ships perfectly unmanageable." Again, he says, "the tide appeared to have been setting to the eastward from noon till 6 P.M., about which time it turned in the opposite direction; and soon after we hove to, the ships were carried by it into the ice, which formed their present impediment, at the rate of more than 3 miles an hour." The curious local effects of the tides differing from each other in parts very close together are remarked on. The ships being in company, "the *Hecla* was, by a different set of the stream, separated 5 or 6 miles from the *Fury*" (p. 9). On the following day Sir Edward remarks, "On the evening of the 7th we found, to our great surprise, that the *Hecla* had drifted 11 or 12 miles to the westward of us, though still beset in the ice." This

* It is a remarkable proof of the southerly current to which the ships were exposed, and also of the indraft to the mistaken straits, that the wreck of the *Denis* was found by the ships in it.

circumstance appeared more extraordinary, the journal adds, "as the ships had been close together a few hours before, and shows in a very striking manner the irregularity of the tides in this neighbourhood." But it will be seen by the following extract that there is a general current to the S.W. in addition to the variety noticed above. Speaking at p. 10 of the same locality, Sir Edward mentions that the ships, having been both made fast to the same floe, "were found to drift from 1 to 4 or 5 miles to the southward daily, and rather to the westward." Now the interval in which the ships were thus secured to the same floe was from the 9th to the 16th of July, in which time the meteorological journal shows the winds to have been $3\frac{1}{2}$ days southerly and S.W., directly against the drift; $2\frac{1}{2}$ days easterly; and 2 days north-easterly; so that, had the ships not been prevented by southerly winds, or had they been more assisted by northerly winds, the drift to the southward might be expected to have been much greater. But all polar navigators seem to agree in stating the tendency of the waters in this part to flow to the southward, or, in other words, that the flood-tides from the northward run stronger than the ebbs; and Sir Edward Parry has preserved Fox's opinion to this effect, especially in a note which will be found at p. 20 of his voyage.

Now it is in this locality, and subject to this current, that Frobisher's vessels were exposed from the time that they were liberated from the ice in the entrance of Frobisher's Strait, on the 3rd of July, 1578, to the 7th July, when, as men nothing dismayed, "they cast about towards the inward, and had sight of the land." The distance from the southern part of the entrance of Frobisher's Strait to that of Resolution Island, on the northern side of the entrance of Hudson Strait, is about 60 miles, according to the view now taken of it; and it requires no great stretch of the imagination to suppose the ships to have been set in a southerly direction during the above interval, when they were recovering from the effects of the ice they had encountered; and this supposition will be assisted by the fact that they were blown out with a W.N.W. wind, which, if it lasted, would have much accelerated their progress. This, however, we have no clue to; but there is much concurrent testimony in the sequel, which seems to place it almost beyond a doubt that the "mistaken strait" of Frobisher, which has so long remained on the charts, was no other than Hudson Strait.

A number of the ships—for they had been much dispersed—had sight of land, which was first supposed to be the N.E. side of Frobisher Strait, the land bearing great resemblance to the "northerland" of this strait, and a point of land being made "which some mistake for a place in the Straights called Mount Warwick;" but as the ships proceeded to the westward, doubts

arose, and the general sent his pinnace on board the ships to obtain opinions of those who knew Frobisher Strait as to where they really were. The master of the "Anne Francis," James Beare, was consulted especially, and also Christopher Hall, author of the journal of the first voyage, which latter, we are told, "delivered a plain and public opinion, in the hearing of the whole fleet, that he had never seen the aforesaid coast before, and that he could not make it for any place of Frobisher's Streights" (Pinkerton, vol. xii. p. 539). On this two vessels put back, namely, the "Thomas Allen," having the Vice-Admiral, Captain Yorke, in which vessel was also James Hall, and the "Anne Francis;" but the general, Martin Frobisher, pushed on, and passed up 60 leagues within the said doubtful straits, bent, no doubt, on discovery; for it is said that, while he knew that he was not in Frobisher's Straits, he persuaded the fleet that they were in their right course. And it is also stated of him that he said afterwards, "if it had not been for the charge and care he had of the fleet and freighted ships, he both would and could have gone through to the South Sea." This, perhaps, is sufficient to show that such was his real intention; and it is not unlikely that, had he continued onwards, he might have deprived Hudson of the honour of discovering Hudson's Bay.

George Best has given in his narrative of the voyage a formal dissertation on the general features of the mistaken strait of Frobisher, in which the proof that it was no other than Hudson Strait must be looked for. We have already accounted for the ship's having been drifted down to the entrance of Hudson Strait; and it appears that, once within that entrance, the progress to the westward was comparatively easy—a circumstance also observed by Sir Edward Parry. He says (p. 19),—"We continued to gain a great deal of ground, the ebb-tides obstructing us very little. Indeed, from the very entrance of Hudson Strait, but more especially to the westward of the Lower Savage Islands, it was a matter of constant surprise to find our dull-sailing ships make so much progress when beating against a fresh wind from the westward." Doubtless this facility of getting to the westward induced Frobisher to stand on. But we will now proceed to the facts stated.

First, the ships stood on, "having the main-land always on their starboard side" (Pinkerton, vol. xii. p. 541). But we will place in juxtaposition the comparison as it appears:

Frobisher's Mistaken Strait.

"The further we sailed the wider we found it, with great likelihood of endless continuance."—Pinkerton, vol. xii. p. 540.

Hudson Strait.

Widens considerably within the entrance between Resolution Island and Cape Chudleigh.

"Seemeth to have a marvellous great indraft. . . . For here also we met with boards, laths, and divers other things, driving in the sea, which was of the wreck of the ship called the bark "Denis," which perished amongst the ice as afore-said."—Pinkerton, vol. xii. p. 540.

"Some of our company affirm that they had sight of a continent upon their *larboard* side, being 60 leagues within the supposed streights."—Pinkerton, vol. xii. p. 541.

"Howbeit, except certain islands in the entrance hereof, we could make no part thereof."

This indraft is already confirmed by Sir Edward Parry.

At 60 leagues within Hudson Strait the breadth is decreased to 15 leagues between the land called the North Bluff on the charts, on the starboard hand, and at the abrupt curve to the northward, on the larboard hand, which would render both shores visible at once; and, except at the entrance, this would not be the case anywhere proceeding up the strait.

The Button Islands, and Green Island, in the entrance of Hudson Strait, correspond to these islands.

Much stress is also laid on the great rise and fall of the tide, as well as the strength of the current, which former, at a place within the straits, is stated by Sir Edward Parry to be at springs about 30 feet.

On returning to the eastward again, after passing several days in the strait, we are told the general "perceived a great sound to go into Frobisher's Strait." Now, as the ships might be supposed to be keeping the northern shore still, they would come to the opening between the East Bluff of Parry and Resolution Island—of which a view is given by Sir Edward Parry—through which an enticing prospect was evidently offered to our navigators to seek their way into Frobisher Strait. Accordingly, the "Gabriel" was sent to explore it, and that vessel passed through into Frobisher Strait; thus proving, besides, that the Queen's Foreland is an island; and, moreover, she succeeded in getting into Warwick Sound before any of the other ships. But it would appear that Frobisher, with the rest of his ships, continued his way to the entrance of Hudson Strait, and suffered considerable delays in reaching that sound. The country passed by the fleet on their starboard, going up "Mistaken Strait," is stated to be "more fruitful and better stored of grass, deer, wild-fowl, &c., than any other part:" natives were also traded with, and boats of the country seen, with "twenty persons in a piece" (Pinkerton, vol. xii. p. 542). These may probably have been the same race of people met with by Sir Edward Parry.

The corresponding features of Hudson Strait and Mistaken Strait of Frobisher, here enumerated, may appear to be few : but that should not prevent their being conclusive, as few there are that can in reality be offered. Hudson Strait, after a narrow entrance of not 15 leagues in width, suddenly opens to an immense breadth, leaving it impossible that the land could be seen on the larboard hand, while that on the starboard hand was visible until 60 leagues within the entrance, when the breadth as suddenly contracts, and where both shores might at once plainly be seen. The islands passed also corroborate the presumption ; and, lastly, the sound or channel inside of Resolution Island affords another concurring fact : all of which features seem to place it beyond a doubt that Hudson Strait is the Mistaken Strait of Frobisher. If this be not admitted, then it will be necessary to find another strait to which the same circumstances will apply to the southward of Frobisher's Strait within the limited distance of 60 miles—an undertaking which the known features of the land do not appear likely to admit.

It would perhaps carry us to an unnecessary length to follow the progress of the ships to Warwick Sound, where they severally arrived at different periods ; and it would besides be introducing matter irrelevant to geographical information to follow them through the various difficulties which they had to encounter. But the voyage now under consideration was productive of more discovery, and more places were visited and named within the strait, than in both of the preceding ones ; which names should be preserved. It will be sufficient, perhaps, to preserve the names of these places, and their relative positions, and to facilitate reference by arranging them in an alphabetical order at the end of this investigation. But, before concluding with the return voyage home, a little expedition, undertaken within the straits, and which seems to be the only one by which they have been explored, deserves being recorded.

Some of the ships had succeeded in getting within the straits and had found refuge on the southern shore among several islands, of which one was much larger than the rest, and from the quantity of black ore (supposed to contain gold) it afforded was named Best's Blessing. But the difficulties they had experienced had checked their ardour so much that murmurs ran high, and thoughts of returning home were loudly expressed by the crews, without endeavouring to follow the rest—among whom was the admiral—to Warwick Sound. A council was held in the captain's cabin of the "Anne Francis" on the 8th of August, at which it appeared that "the fearfuller sort of mariners, being overtired with the continual labour of the former dangers, coveted to return homeward, saying that they would not again tempt God

so much, who had given them so many warnings and delivered them from so many wonderful dangers; that they rather desired to lose wages, freight, and all, than to continue and follow such desperate fortunes. Again, their ships were so leaky, and the men so weary, that to amend the one and refresh the other they must of necessity seek into harbour." But Captain Best, of the "Anne Francis," resolutely opposed this proposal, treating it with the utmost disdain, and concluded an address to the people by saying that "it should never be spoken of him that he would ever return without doing his endeavour to find the fleet, and know the certainty of the general's safety." At last it was agreed that a harbour should be sought in this part of the straits, and then that a small pinnace, which was on board the "Anne Francis" in frame, should be set up, and accordingly, two days afterwards, some of the ships got into a harbour in the island called Best's Blessing. The construction of the pinnace was then completed, but in such a manner as not to satisfy every one as to her safety; indeed, the whole transaction affords a fair specimen of the determined perseverance of our best seamen in those remote times. It appears that those essential parts called knees had been omitted, and there were no nails to work with; but a smith was found among the crew, and we are told that "they were fain of a gun-chamber to make an anvil to work upon, and to use a pick-axe instead of a sledge to beat withal; and also to occupy two pairs of small bellows, instead of one pair of great smith's bellows; and for lack of small iron for the easier making of the nails, they were forced to break their tongs, gridiron, and fire-shovel in pieces." However, the pinnace was completed; and Captain Best, bent on finding the general, expressed his intention of proceeding in her to explore the Straits in quest of him. But some of the crew were averse to this, and tried to dissuade him, more especially the carpenter, who it may be supposed knew best what she could do, and who said "he would not adventure himself therein for 500*l.*, for that the boat hung together only by the strength of the nails, and lacked some of her principal knees and timbers."

This did not deter Captain Best from his purpose, for on the 19th of August the pinnace started with him, accompanied by Captain Upcote, of the "Moon," and eighteen persons, who had been induced to volunteer by the example of John Gray, the master's mate of the "Anne Francis." It is related that, "being shot up about 40 leagues with the streights, they put over towards the N. shore, which was not a little dangerous for their small boats (? boat), and by means of a sudden flaw were driven, and fain to seek harbour in the night amongst the rocks and broken

ground of Gabriel's Islands, a place so named within the streights above the Countess of Warwicke's Sound." We can here obtain some idea of the length of the strait, the southern shore by this account being 120 miles; but perhaps something short of this, as the distance was estimated. Passing down the northern shore of the strait, a party, under Captain Fenton, of the "Judith," were discovered at a place named Sussex Mine, not 5 leagues above Warwick Sound, whither they repaired, and found the general; being received with joyful acclamations; or, in the words of the journal, "And truly it was a most strange case to see how joyful and glad each party was to see themselves meet in safety again, after so strange and incredible dangers: yet, to be short, as their dangers were great, so their God was greater."

A communication was now established—the ships left on the southern shore joined company, and in the latter part of August they departed homewards, arriving all safely in England about the 1st of October.

Subjoined is a list of places named by Frobisher, the record of which is preserved by Hackluyt, and his account of them quoted from the different voyages. The reference P. is to the twelfth volume of Pinkerton's collection; H. to the volume published by Hackluyt in 1689.

BEARE SOUND.—So called after the master of the "Michael." On northern shore of Frobisher Strait, about 5 leagues below Warwick Sound, and 25 leagues from the Queen's Foreland, P. 508 and 522. A sound upon the Northerland—a day across from Jackman's Sound—tides swift in it—drift ice, P. 521. Has an island near it, named Leicester Island, P. 521. In another of the small islands was found the corpse of a native. Captain Best, on his way from Warwick Sound to Hatton's Headland, set his miners ashore at Beare Sound. Busse, of Bridgewater, passed through it to northward, P. 555.

BEST'S BULWARK.—The corner of a cliff on Countess Island, in Warwick Sound, entrenched as a fortification by Lieut. George Best, Frobisher's lieutenant on second voyage. On three parts like a wall of good height, encompassed and well fenced with the sea, P. 527, second voyage. A house left on it in third voyage, P. 553. Nearly connected with the main or larger island, as at low water natives could nearly wade to it.

BLOODY POINT.—So called on occasion of the slaughter there. South-eastern point of entrance of Yorke Sound—about 4 leagues further within Frobisher Strait (on S. side) from Jackman's Sound, P. 524, H. (edit. of 1689) 626.

BEST'S BLESSING.—A great black island on southern shore

at entrance of Frobisher Strait, whereon plenty of black ore was found, P. 550. Contains a harbour in which ships took refuge, and within which is a rock; the "Anne Francis" struck on it. P. 550, third voyage.

BURCHER'S (OR BUTCHER'S) ISLAND.—Ten leagues from Thomas William's Island within Frobisher Strait, P. 492. Nearer perhaps to eastern than to western shore of strait. Ships were first on W. side of it, as they "waied," and went on 20th of August to eastern, H. 621, first voyage.

COUNTESS ISLAND and SOUND.—*See* Sussex and Warwick.

DAVID'S SOUND.—Mentioned, P. 508; perhaps between Beare Sound and Hall Sound.

DIER'S (OR DYER'S) SOUND.—Calm and still water, H. 634; near Beare Sound, after Andrew Dyer, master's mate, P. 496; second voyage.

FIVE MEN'S SOUND.—Near to Burcher's Island, so called from five men and a boat being lost when sent on first voyage, to place a native on shore who had been captured; first voyage, P. 493.

FROBISHER STRAIT.—Fifty leagues in length, P. 512; land on either hand a great main or continent; also 60 leagues in length; in next hand to Hall's Island, and somewhat further up to the northward, P. 517. Narrowest part between Jackman Sound and Warwick Sound; between land and land, 9 leagues over at least, P. 525. A large entrance between Queen's Foreland and Hall Island, H. 623. Country on both sides very high, rough, stony, and mountainous, H. 629. Queen's Foreland being $62\frac{1}{2}^{\circ}$, and Hall's Island in $62^{\circ} 50'$, gives breadth of entrance, if N. and S., about 7 leagues.

GABRIEL ISLAND.—Ten leagues above Prior or Warwick Sound, P. 492; first voyage.

GOOD HOPE CAPE.—Perhaps the western point of Gabriel's Strait, P. 543.

GABRIEL'S STRAIT connects Hudson Strait, or Frobisher's Mistaken Strait, with Frobisher Strait, westward of Resolution of former, and island of Queen's Foreland in latter.

HALL'S ISLANDS.—Two in number—on northern side of entrance to Frobisher Strait, on which is North Foreland and Mount Warwick—small island near large one, P. 517; after Hall, master of "Gabriel." Is "divided from Northerland by a little sound called Hall Sound." P. 517. Hall Island, little less than Isle of Wight, standeth in the lat. $62^{\circ} 50'$; second voyage, P. 517.

HATTON'S HEADLAND.—Just within the straits on southern shore, P. 542; about 15 leagues over on western shore from War-

wick Sound, P. 553; highest land of all the straits—close to island called Best's Blessing, P. 551.

JACKMAN SOUND. — Named after master's mate, Charles Jackman, on western shore, P. 497. Contains an island named Smith's Island, from forge being first set up there—a very narrow passage between it and land, scarcely room for a ship to turn in it, P. 520, second voyage. Another small island in it also, P. 520; "lieth directly almost over against Warwick Sound, about 9 leagues over," P. 525. "Scarce 30 leagues within the streights," P. 525; "from the Queen's Cape, which is the entrance of the streight of the Southerland," P. 525.

LABRADOR CAPE.—H. 621. Journal says, after leaving Gabriel's Island, "We had Cape Labrador W. from us 10 leagues; possibly the outer cape or extreme eastern point of Queen's Foreland."

LEICESTER POINT.—P. 547, perhaps on southern shore near Hatton's Headland.

MOUNT OXFORD.—P. 547, perhaps near Hatton's Headland.

NORTH FORELAND.—On Hall Island, P. 517, divided from Northerland by a little sound called Hall Sound, P. 517.

PRIOR'S SOUND.—*See* Warwick Sound.

QUEEN'S FORELAND.—"An island near the supposed continent of America, P. 495; and on the other side, opposite to the same, one other island called Halle's Isle, after the master of the ship; near adjacent to the firm land supposed continent with Asia, between the which two islands there is a large entrance or streight, called Frobisher Streight, after the name of our general, the first finder thereof. P. 495, second voyage. See also P. 512. Standeth in lat. of $62\frac{1}{2}^{\circ}$ to the northward of Newfoundland: a harbour in the island. H. 634."

SMITH ISLAND.—In Jackman Sound. "So called because the smith first set up his force (? forge) there." P. 521, second voyage. A small island.

SUSSEX ISLAND.—On which was a mine, by Beare Sound, P. 508, found by Frobisher, P. 509; third voyage.

THOMAS WILLIAM'S ISLAND.—Above Warwick Sound, P. 492. Boats rowed down to it from Five Men's Sound in one day. P. 493.

TRUMPET ISLAND.—Between Thomas William's Island and Gabriel Island, P. 493. About 6 or 8 hours' sail from Thomas William's Island, as the journal says, by "12 of the clocke at noone we were thwart of Trumpets Island." Ships left Thomas William's Island at daylight.

WARWICK MOUNT.—Journal says, "We arrived at length on the main of Hall's greater island . . . and passed up into the

country about 2 English miles, and recovered the top of a high hill, on the top whereof our men made a column of cross stones, heaped up of a good height together. . . . and honoured the place with the name of Mount Warwick, in remembrance of the Right Hon. Ambrose Dudley, Earl of Warwick." P. 518, second voyage.

WARWICK SOUND.—A fair harbour unto which is annexed an island on E. shore, called after Ann Countess of Warwick. P. 499, second voyage. A bay fenced on each side with small islands lying off the main, which break the force of the tides, and make the place free from any indrafts of ice. A very fit harbour for ships—not above 30 leagues from the Queen's Foreland, P. 522, in narrowest part of the straits, directly almost over against Jackman Sound.

WINTER'S FORNACE.—See P. 508.

YORKE SOUND.—After the master of the "Michael." On the W. shore not far from Jackman Sound, P. 498. About 4 leagues distant from Jackman's Sound, P. 523.

In addition to the foregoing, it may be inferred, from the fact of the ships running up Hudson's Strait by mistake, that the direction of Frobisher Strait generally is much the same as that of Hudson.

Since the foregoing was drawn up, I have been supplied, by the assiduous attention of Mr. Weir, the editor of the 'Transactions,' with a traced copy of a plan, in the library of the British Museum, representing, in the vague confused style of the time, the land named by Frobisher *Meta Incognita*, which appears to be divided by his strait. This drawing has been of service in confirming the positions which I had assigned to several places, although too limited to show the situations of many more mentioned in the account of the voyages. But the rude manner in which it has been drawn has also served to mislead some of our chart-makers of other days, who have evidently been content to follow it as nearly as they could without reading closely the account of the voyage. For instance, Hatton's Headland is written on the S. side of the island, forming Queen Elizabeth's Foreland, accounting for its appearing as the name of a headland at the entrance of Hudson Strait even in the charts used at present, while it is actually "just within Frobisher Strait on the southern shore."* It moreover confirms the conclusion already

* Cape Best is substituted for Hatton's Headland, as it appears on the plan above alluded to; and Cape Warwick has been substituted for Cape Resolution on the present charts, on the authority of Fox, p. 182.

arrived at, Hudson Strait appearing in it under the title of the "Mistaken Strait." The title of the drawing is as follows:—"Traced from the particular card of Meta Incognita in George Best's True Discourse of Frobisher's Three Voyages, published in 1578." The card is said to be "so farre forth as the secretes of the voyage may permit;" and the printer tells the reader that "some secrets have been concealed in the text as not fit to be published or revealed to the world, as the degrees of longitude and latitude, the distances and true position of places, and the variation of the compasse." The document is a curious one on the whole, and shows the idea of Frobisher, and which prevailed at the time, that the strait leading into Hudson Bay "trended to Cathaye."

The land N. of Meta Incognita, divided from it by a considerable strait, is called Greenland (Cumberland Island of Baffin); and "West England *olim* West Frisland," an island, appears on the eastern side opposite the entrance of Frobisher Strait, adding still more confusion. This island is clearly the southern part of Greenland.

With reference to the chart accompanying this paper of the northern land above alluded to, a large inlet, which has been explored by the Lord Gambier, a whaler, under the orders of Mr. Wareham, and the name of Northumberland Inlet given to it, has been introduced into it, leaving the space between it and the islands forming the northern boundary of Frobisher Strait an entire blank. There appears, however, to be good reason for concluding that the space from Cumberland Island to Hudson Strait on the S., and Fox Channel on the W., consists of an archipelago of islands entirely unexplored since the voyages of these two early N.W. navigators. The discoveries of Frobisher, with the assistance of the sketch before alluded to, as named Meta Incognita, must be received on the chart as an attempt to supply, from very imperfect description, in the absence of all other information, some resemblance to what may hereafter be found; and a similar attempt might be made with advantage, even with the scanty materials which have been left by Fox, with the view of redeeming information which he has left us. But it is impossible to contemplate the imperfect state of the charts of this comparatively small portion of the arctic regions without cherishing a hope that in the course of time it may be considered worthy of the attention of a government which, beyond all others, has proved itself the parent and friend of maritime discovery.
